

**REMARKS**

Claims 11-15, 30-33, 37-39, and 41-47 are pending in this Application. By this Amendment, claims 11-12, 30, 39, and 41 have been amended. Support for the amendments may be found at least in paragraphs [0043]-[0044] and Fig. 4 of the published Application. No new matter is added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

**I. Finality of the Office Action is Improper**

A second or subsequent Office Action “on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant’s amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).” MPEP § 706.07(a).

Here, the present Final Office Action introduces new grounds of rejection of all claims. Specifically, the Final Office Action relies on a newly cited reference Nishihara (U.S. Patent No. 6,522,902) in its rejection of all claims. The Response dated March 13, 2008, did not include any amendments that necessitated the new grounds of rejection. In the Response dated March 13, 2008, Applicants incorporated the subject matter of dependent claim 35 into independent claims 11, 30, and 41, and canceled claim 35. The subject matter of canceled claim 35 was previously examined at pages 10-11 of the Office Action dated April 17, 2008. Therefore, the new grounds of rejection were not necessitated by Applicants’ amendment. The new grounds of rejection also were not necessitated by an information disclosure statement, because no such statement had been filed after issuance of the immediately preceding Office Action. Therefore, finality of the present Office Action is premature and should be withdrawn. See MPEP §

706.07(d). Accordingly, the Applicants respectfully request the Examiner to withdraw finality of the Action and consider the arguments below.

## **II. Claims Define Patentable Subject Matter**

The Office Action rejects claims 11-13, 15, 30-33, 37-38, and 41-46 under 35 U.S.C. §103(a) as being unpatentable over Olson (U.S. Patent No. 6,727,602) in view of Nishihara (U.S. Patent No. 6,522,902); rejects claim 14 under 35 U.S.C. §103(a) as being unpatentable over Olson in view of Nishihara and further in view of Kitagawa (U.S. Patent No. 6,624,613); and rejects claims 39 and 47 under 35 U.S.C. §103(a) as being unpatentable over Olson in view of Nishihara and further in view of Choo (U.S. Patent No. 6,452,362). To the extent that these rejections remain applicable to the claims, as amended, the Applicants respectfully traverse these rejections, as follows.

The Applicants disclose a novel and unobvious approach for extending battery life in an electronic device having a first battery and a second battery. This is achieved by first determining whether a voltage differential exists between the first battery and the second battery. If a voltage differential exists between the first and second batteries, coupling the battery with a greater voltage to a processor of the electronic device. If, however, no voltage differential exists between the first and second batteries, determining whether the electronic device is in a traffic state or an idle state. If the device is in the traffic state, operating each of the first and second batteries in a pulse current discharge mode while supplying continuous current to the processor, and if the device is in the idle state, coupling the first and second batteries to the processor.

The above concept is captured in claims 11, 30, and 41. For example, amended claim 30 recites, *inter alia*, “a power management module configured to operate each of the first and second batteries in a pulse current discharge mode while supplying continuous current to the

processor when no voltage differential exists between the first and second batteries and when the wireless communications device is in the traffic state, wherein the power management module is further configured to continuously couple the first and second batteries to the processor when no voltage differential exists between the first and second batteries and when the wireless communications device is in the idle state, and wherein the power management module is further configured to continuously couple the battery with a greater voltage to the processor when a voltage differential exists between the first and second batteries” (emphasis added). Amended claims 11 and 41 recite similar features.

In rejecting claims 11, 30, and 41, the Examiner cites Olson and Nishihara. Olson discloses a power supply and switching technique that utilizes a first battery and a second battery to charge a load. Olson discloses a power controller 108 that controls the power delivered to the batteries by opening and closing switches 103 and 106 in an alternating fashion via a series of pulses (control signals  $V_P$  and  $V_N$ ). Olson also discloses that the power controller 108 may close the switches 103 and 106 so that the power is delivered from both batteries at the same time. See col. 5, lines 29-37 of Olson. However, there is no suggestion anywhere in Olson that the operation of the power controller 108 depends on whether there exists a voltage differential between the two batteries. According to the amended claims, the power management module is configured to operate each of the first and second batteries in a pulse current discharge mode depending on whether a voltage differential exists between the first and second batteries. If a voltage differential exists, the power management module stops operating in the pulse current discharge mode, and instead proceeds to continuously couple the battery with the greater voltage to the processor. Olson, however, fails to disclose or suggest that the power controller 108 seizes alternating between the switches 103 and 106 when there exists a voltage differential between

the first and second batteries. Olson merely varies the amount of time that the controlled power switches discharge the battery into the load by altering the pulse width of control signals  $V_P$  and  $V_N$ . See col. 9, lines 58-67 and col. 10, lines 1-47. Accordingly, Olson fails to disclose or suggest a power management module, as recited in amended claims 11, 30, and 41.

Nishihara merely discloses a battery pack including a control mechanism that switches the connection of two batteries from parallel to series during a talk mode, and from series to parallel during non-talk mode. There is no mention whatsoever in Nishihara of a pulse current discharge mode. Thus, the battery pack of Nishihara is not even configured to operate the two batteries in pulse current discharge mode, let alone switch out of pulse current discharge mode when a voltage differential exists between the two batteries. See col. 12, lines 65-67 and col. 13, lines 1-7. Accordingly, Nishihara, individually or in combination with Olson, fails to disclose or suggest at least a power management module that is configured to operate each of the first and second batteries in a pulse current discharge mode depending on whether a voltage differential exists between the first and second batteries, as recited in amended claims 11, 30, and 41.

Secondary references Choo and Kitagawa, individually or in combination with Olson and Nishihara, also fail to disclose or suggest the aforementioned features, as recited in claims 11, 30, and 41, and as such, fail to make up for the deficiencies of Olson and Nishihara.

In accordance with the above remarks, the Applicants respectfully submit that claims 11, 30, and 41 define patentable subject matter. Claims 12-15, 31-33, 37-39, and 42-47 depend from claims 11, 30, and 41, respectively, and therefore, also define patentable subject matter, as well as for the additional features recited therein.

**III. Conclusion**

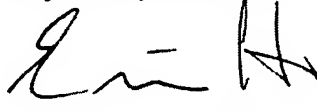
In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 11-15, 30-33, 37-39, and 41-47 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number set forth below.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Dated: 3/5/09

Respectfully Submitted,

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